QTp Pumice breccia and sandstone--Pumice breccia, pale-

QTh Hornblende-rich dacite(?) intrusive--Dark-gray

Teg UNNAMED WELDED TUFF, CONGLOMERATE, AND SANDSTONE

Thickness 100 ft (30 m)

Rd DINWOODY FORMATION (LOWER TRIASSIC) -- Siltstone,

Thickness 450-550 ft (137-168 m)

parts. Thickness 180 ft (55 m)

ness about 450 feet (137 m)

ft(23-30 m)

Formation

PMa AMSDEN FORMATION (PENNSYLVANIAN AND MISSISSIPPIAN) --

Pp PHOSPHORIA FORMATION (PERMIAN) -- Dolomite, chert, phos-

TENSLEEP SANDSTONE (PENNSYLVANIAN) -- Sandstone, lightgray, weathering yellowish brown, fine-grained, hard, brittle, quartzitic in some zones. Middle and lower parts contain many beds of gray finegrained limestone and dolomite. Contact with underlying Amsden Formation transitional. Thick-

Shale and siltstone, brick-red, red-brown, and green, interbedded with white dolomite and limestone. Several zones contain ocher-colored and carnelian-red chert nodules. Thickness, exclusive of Darwin Sandatone Member, about 450 ft

Darwin Sandstone Member (Upper Mississippian)--Gray to brownish-pink fine- to medium-grained sandstone with some large rounded frosted quartz grains; crossbedded; moderately soft and porous; red shale partings near top. Thickness 75-100

MADISON LIMESTONE (UPPER AND LOWER MISSISSIPPIAN) --Limestone, light- to dark-gray, thick-bedded to massive in part, thin-bedded and dolomitic in part, especially near base. Abundant horn corals occur in more massive beds. Many layers contain black chert nodulés. Thickness about 1,100 ft

Bull Ridge Member (Upper Mississippian) -- Shale and siltstone interbedded with orange-red to tan sandstone, tan to pink dolomite breccia, and blue-gray ledge-forming limestone that contains highly distinctive red and "zebra-striped" gray and black chert nodules. Thickness 50-100 ft (15-30 m). Has previously been included in the upper part of the Mission Canyon Limestone, in

the upper member of the Madison Limestone, or

mapped as all or part of the Brazer Limestone, "strawberry beds," or basal part of the Amsden

thin-bedded; lower part is brown fetid vuggy

part is dolomitic siltstone and shale, dull-yellow,

siliceous brittle dolomite containing sparse thin

and dark-gray, mottled, siliceous; forms ragged

gray cliffs. Leigh Dolomite Member, about 50 ft

(15 m) thick, forms slope at top and consists of

chalky-white very fine grained brittle dolomite.

Thickness of formation about 200 ft (61 m)

CAMBRIAN) -- Gallatin Limestone is dark gray,

weathering tan, mottled, hard; forms cliffs;

lower part contains flat-pebble "edgewise" con-

glomerate; some green flaky shale near middle.

Park Shale is dark green to drab, soft, flaky;

Gallatin Limestone about 200 ft (61 m); of Park

dense, thin-bedded; crops out in cliffs; middle

part contains 30 ft (9 m) of flaky green shale

containing abundant trilobites. Thickness 370

--Wolsey Shale is green to olive drab, soft,

micaceous, more silty near base; lower part is

very glauconitic and interbedded with sandstone;

glauconite weathers to red hematitic color; thick-

ness about 130 ft (40 m). Flathead Sandstone is an indurated white, pink, and brown sandstone,

conglomerate, and orthoquartzite; forms cliffs.

gray to dark-green, coarse-grained, nonlayered, with dark-green clots of hornblende in matrix of

-- Complex interlayered biotite gneiss, quartz

blue-gray, with brown mottling, hard, fine-grained,

several zones of algal heads. Thickness of

Edc DEATH CANYON LIMESTONE (MIDDLE CAMBRIAN) -- Limestone,

€wi WOLSEY SHALE AND FLATHEAD SANDSTONE (MIDDLE CAMBRIAN)

Total thickness about 200 ft (61 m)

PEr RENDEZVOUS METAGABBRO (PRECAMBRIAN W) -- Metagabbro,

plagioclase gneiss, and amphibolite

NORMAL FAULT-Dotted where concealed or inferred.

Bar and ball on downthrown side

>- U.S.G.S. phosphate trench showing number

← --- Selected stream channel--Most have been abandoned

Terrace margin--Hachures on downslope side. Solid

10 ft (3 m) above terrace ET-1

WT-la 10-15 ft (3-4.6 m) above terrace WT-1 WT-2 10-15 ft (3-4.6 m) above terrace WT-1a

because of subsequent drainage changes

line where two mappable types of deposits are

separated by terrace margin; dashed where same

Terraces related to opposite sides of Snake River:

At and within 10 ft (3 m) of present river level

40 ft (12.2 m) above terrace ET-1b (terrace ET-2

is not recognizable in this quadrangle)

At and within 10 ft (3 m) of present river

type of deposit is on both sides of terrace margin

PEgm LAYERED GNEISS, GRANITE, AND MIGMATITE (PRECAMBRIAN W)

light-gray plagioclase

STRIKE AND DIP OF BEDS

Generalized dip without strike

OTHER FEATURES

East side:

West side:

level

====== Morainal form lines

DARBY FORMATION (UPPER AND MIDDLE DEVONIAN) -- Upper

limestone beds. Thickness 30 ft (91 m)

Ob BIGHORN DOLOMITE (UPPER ORDOVICIAN) -- Dolomite, light-

Egp GALLATIN LIMESTONE AND PARK SHALE (UPPER AND MIDDLE

Shale about 200 ft (61 m)

ft (113 m)

pink and white; composed of frothy pumice chunks and black obsidian in a soft massive shard matrix; some perlite; underlain by gray tuff and sandstone, in part very limy. Thickness about 120 ft (37 m)

coarse-grained porphyritic rock containing abun-

(TERTIARY?) -- Upper half is red dense flow-breccia and welded tuff containing abundant gray and black obsidian fragments as large as 2 in. (5 cm) in diameter; underlain by stratified tuffaceous pink conglomerate, which contains some white pumice fragments 6 in. (15 cm) in diameter and angular boulders of Paleozoic and Mesozoic rocks. Attitude contrasts with nearby younger igneous and volcaniclastic rocks in that they are nearly horizontal whereas this sequence dips 40° west.

brownish-gray to olive-drab, slabby, thin-bedded, hard, dolomitic; contains thin partings of finegrained dolomitic sandstone and silty limestone.

phorite, and black shale. Dolomite and chert are dark gray to brown, sandy, chiefly in upper part; phosphorite and black shale in middle and lower

dant fragments of Precambrian black gneiss

Qs Qob								Holocene	
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		Qg 4							QUATERNARY
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		Teg							} TERTIARY(?)
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QC.	fr	agment	s deri	lved f	rom ui	nderly	ing and	d adjacent	
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q.p	an	ount o	f grav	vel at	surf	ace di	stingui	ishes these	
	A	nasita	from	those	alone	tona	graphic	cally lower	

Overbank deposits -- Gravel adjacent to major stream flood channelways; grades laterally to sand, silt, and clay in short distances from the channels; confined to areas adjacent to major

HOLOCENE AND PLEISTOCENE SURFICIAL DEPOSITS

Loess--Silt, light-gray, structureless, homogeneous, wind-deposited. Gastropods from several localities have a C-14 age ranging from 13,000 to 19,000 years

loess and talus deposits -- Loess and talus, intermixed; confined to lower parts of steep slopes Alluvial fan deposits -- Crudely stratified gravel, sand, silt, and clay spread outward from mouths of ravines and canyons; shows linear sorting, along distributaries; finer grained debris becomes progressively more abundant toward downstream margins of fans

Talus deposits -- Locally derived coarse angular

Talus and alluvial fan deposits -- Intermixed debris of both types of deposits, confined to canyons and steep slopes in Teton Range

of quartzite roundstones Landslide debris--Chaotically mixed boulders and

finer grained rock debris emplaced by mass

adjacent glaciers

PLEISTOCENE SURFICIAL DEPOSITS

Glacial debris of fourth major glaciation--Morainal

Teton Range debris with subdued surface topography; capped

are not locally derived QUATERNARY OR TERTIARY SEDIMENTARY AND VOLCANIC ROCKS Andesite of uncertain age--Andesite, pink, brown, or black, coarsely porphyritic; chiefly flows and

Perlitic rock--Dark-gray granular perlitic rock, soft; contains abundant obsidian fragments.

Glassy porphyry--Porphyry, light-gray, coarsely crystalline, felsic, intrusive

Gray basalt(?)--Basalt(?), gray, dense, fine-grained, homogeneous; slabby parting in flows; greenishyellow to black scoria locally at base and in other

horizons. Maximum thickness 500 ft (152 m) Red flow-breccia and pumice--At top is red dense lava flow as much as 200 ft (61 m) thick, underlain by 50-100 ft (15-30 m) of red flow-breccia and pumice. At base locally is 100 ft (30 m) of ribbon-laminated red and gray hard densely welded tuff containing angular fragments of black obsidian

and pink, consisting of angular fragments of matrix. Thickness about 30 ft (9 m)

streams

rock fragments that accumulated on steep slopes and at the base of cliffs

Gravel deposits -- Gravel deposited along flood channelways of major streams; composed chiefly

Terrace gravel--Predominantly gravel of rounded quartzite fragments deposited by meltwater from

Glacial and talus debris -- Intermixed glacial and talus debris on steep lower east slope of Teton

debris with sharp, unmodified surface topography; confined to major canyons in the Teton Range; composed largely of rock debris derived from the Glacial debris of third major glaciation--Morainal

by loess and soil in most places; contains some debris brought in from the north and northeast Glacial debris of second major glaciation -- Very old formless piles of erratics and lag deposits of large and small erratics, in places mixed with outwash gravel, sand, and silt; most erratics

intrusive masses. Thickness at least 1,000 ft (305 m)

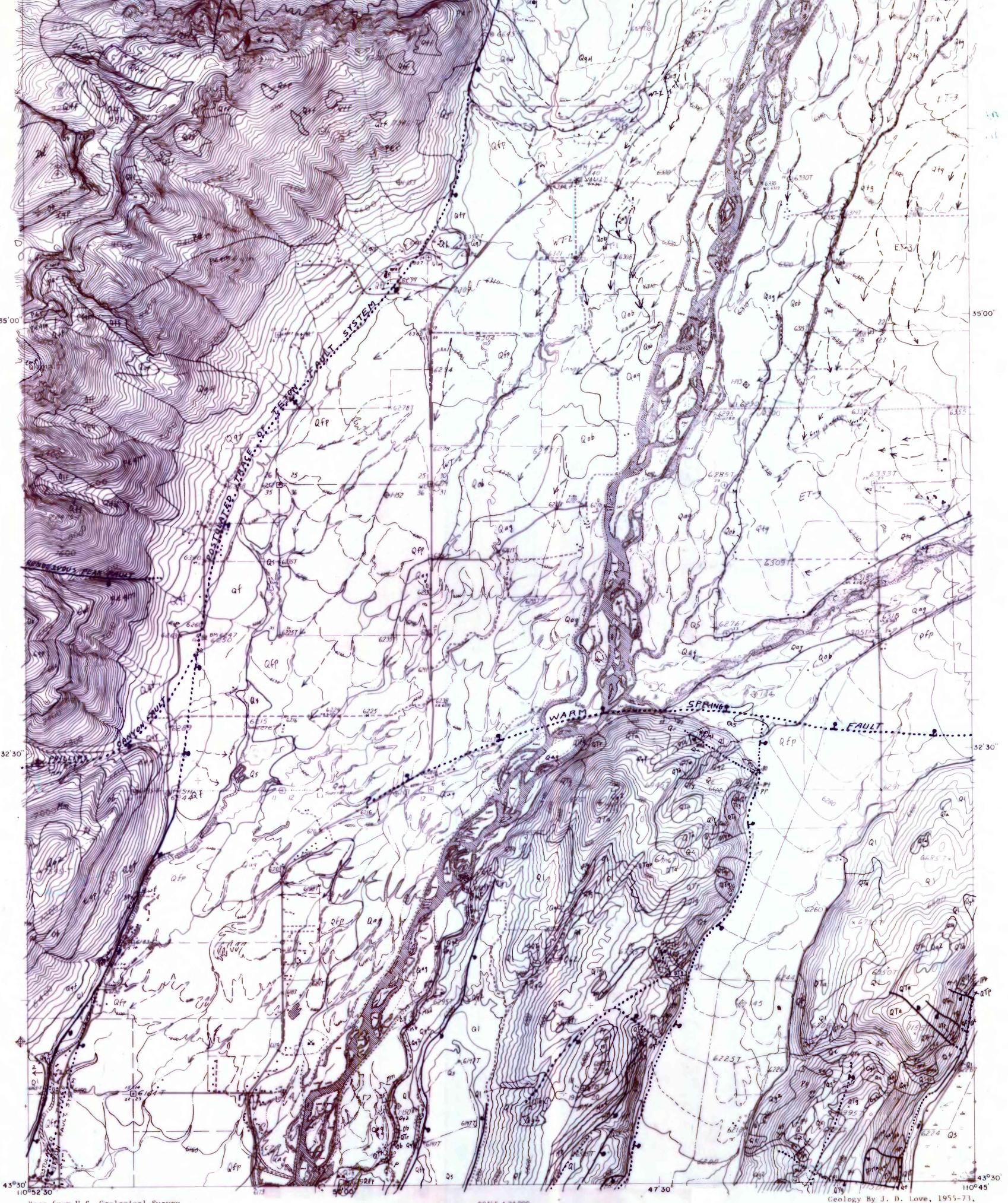
Thickness 100 ft (30 m)

Gray and pink pumice breccia--Pumice breccia, gray layered and fibrous pumiceous rock in a pumicite

U.S. Geological Survey OPEN FILE REPORT This map is preliminary and has not been edited or reviewed for conformity with Geological Survey standards or nomenclature.

J. C. Reed, Jr., 1970, and

John Montagne, 1955



GEOLOGIC MAP OF TETON VILLAGE QUADRANGLE, TETON COUNTY, WYOMING

J. D. Love and John C. Reed, Jr.

1975

Base from U.S. Geological Survey

unedited advance print